

Application No.: 10/782,922

Docket No.. 20140-00262-US1

AMENDMENTS TO THE CLAIMS

This listing of Claims will replace all prior versions and listings of Claims in the application:

Claims 1-14 (Canceled).

15. (Currently amended) A method of making a polishing pad, comprising a body comprising fibers embedded in a matrix polymer formed by a reaction of polymer precursors, said fibers defining interstices, and said precursors filling said interstices substantially completely before completion of said reaction, said method comprising:
placing said fibers and said precursors in a cavity of a mold for shaping said pad;
applying a differential pressure across said mold cavity, said differential pressure and the amount of said precursors being sufficient to cause said precursors to fill said interstices substantially completely before completion of said reaction;
applying sufficient heat to said mold to at least partially cure said pad by causing said precursors to react; and
A method according to claim 14, further comprising removing said cured pad from said mold cavity and buffing at least one side of said cured pad with an abrasive device for fracturing and removing a portion of said polymer to form a polishing layer of free fibers, at least a portion of said free fibers being embedded in un-fractured matrix polymer of said body adjacent to said polishing layer.
16. (Original) A method according to claim 15, wherein said polishing layer of free fibers has a thickness of about 2 mils or less.
17. (Currently amended) A method according to claim ~~14~~ 15, wherein said fibers comprise a fiber web formed by a non-woven technique, including needle-punching, hydro-entangling, chemical bonding, or air-through bonding, or by a woven technique, including weaving, knitting, or felting.

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18. (Original) A method according to claim 17, wherein said fiber web has an initial thickness of about 50 mils to about 100 mils when placed in said mold cavity, and wherein said initial thickness is reduced by about 10% to about 20% by said heat and pressure.
19. (Canceled) A method for polishing a surface comprising contacting the surface to be polished with a polishing pad comprising a body comprising fibers embedded in a matrix polymer formed by a reaction of polymer precursors, the fibers defining interstices, and said precursors filling said interstices substantially completely before completion of said reaction.
20. (Canceled) A method according to claim 19, wherein said polishing pad further comprises a polishing layer of free fibers, at least a portion of which have a segment thereof embedded in the matrix polymer of said body.
21. (Canceled) A method according to claim 20, wherein said polishing layer of free fibers has a thickness of about 2 mils or less.
22. (Canceled) A method according to claim 19, wherein said fibers comprise a fiber web formed by a non-woven technique, including needle-punching, hydro-entangling, chemical bonding, or air-through bonding, or by a woven technique, including weaving, knitting, or felting.
23. (Canceled) A method according to claim 19, wherein the surface to be polished is Al, Al alloys, Cu, Cu alloys, W, W alloys, silicon oxide, polysilicon, silicon nitride, Ta, Ta alloys, Ti, Ti alloys, Au, Au alloys, or combinations thereof.
24. (Canceled) A method according to claim 19, wherein said polishing is chemical-mechanical polishing (CND).